

**A FOLDABLE, STURDY, LIGHTWEIGHT MONITOR STAND FOR EASY
PORTABILITY AND STORAGE**

**STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR
DEVELOPMENT**

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The invention described herein may be manufactured and used by or for the government of the United States of America for governmental purposes without the payment of any royalties thereon or therefor.

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FIELD OF THE INVENTION

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The present invention relates to apparatus for a foldable, portable, monitor stand that is sturdy enough to house a computer system, and more specifically, a lightweight monitor stand where its foldable walls having support structures (including shelves) that are also foldable for easy portability for military, commercial and recreational applications including, but not limited to, tradeshow, conferences, and conventions.

BACKGROUND OF THE INVENTION

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The Kiosk was designed and developed to accommodate a need for a “stand alone unit” that houses an interactive computer monitor / touch screen display, for commercial trade shows and traveling exhibit applications. The requirements were to be lightweight, collapsible and shippable (UPS, FEDEX etc.) and yet maintain a “corporate” look. It was also required to have shelving for a CPU and CD/DVD player, keyboard, speakers for the audio aspect and a storage area for miscellaneous accessories. The kiosk also required that an operator be able to gain access to the equipment without completely

disassembling the unit, so a locking door feature was incorporated into the present invention.

From the foregoing, it will be appreciated that there is a need in the art to develop a sturdy lightweight foldable monitor stand with foldable shelves for easy portability and storage. The present invention is directed to overcoming one, or more, of the problem set forth above.

SUMMARY OF THE INVENTION

The present invention relates to a foldable, sturdy, lightweight, multi-walled monitor stand for portability. The monitor stand includes: at least three walls, a plurality of support structures, and a top wall, each wall having a top section, bottom section, inner section, and outer section; at least three walls enclosing the plurality of support structures, wherein at least one wall having an opening for a computer monitor; hinging means for coupling (hinges) each wall, each support structure, and top wall together to form a unitary structure which permits folding between the walls, support structures, and top wall to form a housing enclosing the support structures, wherein at least two walls being non-hingedly attached, and a first means for securing the support structures and top wall to a desired position on the inner section of the walls within the housing when the stand is assembled, another means for securing being coupled to the inner section of the walls; and a second means for securing the non-hingedly coupled walls together for complete assemblage of the stand and/or to secure any items within the assembled stand.

Small casters allow the kiosk to be easily moved and relocated during the constantly changing tradeshow environment. Slight variations of the unit will allow for computer

monitors of various sizes to be used without changing the kiosks overall dimensions. The casters are removable to allow for a semi permanent display, including a lobby or alcove. The present invention provides the apparatus to be setup from crate to freestanding in just minutes.

5 It is to be understood that the foregoing general description and the following detailed description are exemplary and explanatory only and are not to be viewed as being restrictive of the present invention, as claimed. These and other objects, features and advantages of the present invention will become apparent after a review of the following detailed description of the disclosed embodiments and the appended claims.

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BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view illustrating the portable monitor stand in assembled form showing the outer shelf for various items including a keyboard and an accessible storage unit for holding consumer related items according to embodiments of the present
15 invention.

FIG. 2 is a perspective view illustrating the unassembled portable monitor stand shown as a unitary structure and the support structures and top wall in a folded, unassembled position according to embodiments of the present invention.

FIG. 3 is a perspective view illustrating the portable monitor stand in a partially
20 assembled position with the support structures and top wall in assembled position according to embodiments the present invention

FIG. 4 is perspective view illustrating the portable monitor stand in a collapsed, portable unassembled position showing the handles according to the present invention.

DETAILED DESCRIPTION OF THE EMBODIMENTS

The present invention relates to a foldable, sturdy, lightweight, multi-walled monitor stand for portability. **Figures 1-4** illustrate embodiments of the monitor stand **10** which includes: at least three walls **12**, a plurality of support structures **16**, and a top wall **14**, wherein each wall **12** includes a top section **28**, bottom section **30**, inner section **42**, and outer section **44**. At least three walls **12** enclose the plurality of support structures **16** and a top wall **14**. At least one wall **12** includes an opening for a computer monitor **18**.

At least one hinging means **22** and **26** is utilized for coupling each wall **12**, each support structure **16**, and top wall **14** together to form a unitary structure which permits folding between the walls **12**, support structures **16**, and top wall **14** and to form a housing enclosing the support structures **16**. The hinging means **22** and **26** for coupling each wall **12**, each support structure **16**, and top wall **14** together includes single hinge(s) or double hinge(s). The unitary structure **10** is folded into a collapsible unassembled position for easy, convenient storage and portability, shown in **Figure 4**.

There includes at least one first means for securing **20** the support structures **16** and top wall **14** to a desired position on the inner section **42** of the walls **12** within the housing when the stand **10** is assembled. The first means for securing **20** each support structure **16** and the top wall **14** include brackets. Each bracket is secured to the inner section **42** of the walls **12**.

At least two walls **12** are non-hingedly attached. The second means **46** for securing the non-hingedly coupled walls **12** together for complete assemblage of the

stand **10** including a locking means coupled to the outer section **44** of the non-hinged walls to secure any items within the assembled stand **10**.

Each wall **12**, top wall **14**, and support structures **16** are constructed of a sturdy lightweight materials including, but not limited to aluminum, plastic, and aluminum plastic laminate. In other embodiments, the monitor stand **10** includes support structures **16** being foldable shelves. The support structures **16** are dimensioned and configured to accommodate the inclusion of at least one of a monitor, interactive touch screen monitor, CPU, keyboard, VCR, DVD player, and other audiovisual equipment. Embodiments of the present invention further include a bolt or pin **48** to securely lock each support structure **16** and top wall **14** in place. The outer section **44** of the walls **12** in embodiments of the monitor stand **10** includes, but not limited to a hook and loop material for attaching objects to the stand **10**. The monitor stand **10** further includes a plurality of shelves **34** coupled to the outer section **44** of the walls **12** of the stand **10** to accommodate a keyboard for the CPU or other relates items.

Embodiments of the monitor stand **10** include an accessible storage unit **36** for consumer related items secured to the outer section **44** of the walls **12**. The monitor stand **10** further includes at least one handle **40** coupled to the outer section **44** of the wall(s) **12** of the stand **10** for portability. Each wall **12** includes at least one aperture **50** dimensioned and configured to accommodate cables and/or plugs. The monitor stand **10** further includes wheels **24** coupled to the bottom **30** of the walls for sliding the stand **10** in assembled form on a floor or like surface. In embodiments of the present monitor stand **10** the wheels **50** are a plurality of permanent or removable casters. The monitor stand **10** includes a lockable rear access door **32** within at least one wall **12** to remove or

add items stored in the monitor stand **10**. The monitor stand **10** further includes a case (not shown) to accommodate the stand **10** in a collapsible configuration for storage and portability.

It should be understood that the examples and embodiments described herein are
5 for illustrative purposes only and that various modifications or changes in light thereof
will be suggested to persons skilled in the art and are to be included within the spirit and
purview of this application and the scope of the appended claims.